

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GUNTER G. FUSS

Appeal No. 96-0501
Application 08/101,499¹

ON BRIEF

Before CALVERT, GARRIS and FRANKFORT, Administrative Patent Judges.

CALVERT, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the examiner's refusal to allow claims 8, 24, 25 and 30 to 36, the only claims remaining in the application.

¹ Application for patent filed August 2, 1993.

Appeal No. 96-0501
Application 08/101,499

The claims on appeal are drawn to a packing device, a cushion for use in packaging an article, and a method of packaging.

The references applied by the examiner in rejecting the appealed claims are:

Holden	3,188,264	June 8, 1965
Gianakos et al. (Gianakos)	3,389,195	June 18, 1968
Bauman	3,412,521	Nov. 26, 1968
Atkins	D 255,661	July 1, 1980
Wright	4,640,080	Feb. 3, 1987
Boeri	5,151,312	Sept. 29, 1992
Starcevich	5,186,990	Feb. 16, 1993

The claims on appeal stand rejected under 35 U.S.C 103 as follows:

(1) Claims 8, 24 and 30 to 33, unpatentable over Bauman in view of Wright alone, or further in view of Boeri or Starcevich.

(2) Claim 25, unpatentable over the references as applied in rejection (1), further in view of Holden or Atkins.

(3) Claims 34 to 36, unpatentable over the references as applied in rejection (1), further in view of Gianakos.

(4) Claim 34, unpatentable over Gianakos alone, or in view of Boeri or Starcevich.

Rejection (1)

We will first consider this rejection with regard to claim 8, which reads:

8. A packing device comprising:

a container;

an article disposed within the container; and

at least one cushioning device disposed in the container with the article, each such cushioning device having a sealed flexible enclosure fabricated of a water soluble biodegradable material, and a multitude of individual particles of water soluble biodegradable fill material within the enclosure, said enclosure having a conformable external surface which engages the article and a wall which serves as a protective barrier to keep the fill material out of direct contact with the article, the pressure within the enclosure being lower than the pressure outside the enclosure so that the fill material is compressed to a volume on the order of 20 to 80 percent of the uncompressed volume of said material.

The examiner's position with regard to this rejection is, in essence, that (answer, page 3):

It would have been obvious to use a multitude of particles and to provide the volume ratio as taught by Wright in the package and method of Bauman '521 to allow the user to control the amount of compression and to allow the cushion to more closely conform to the contents.

As for the requirement that the enclosure and fill material both be a "water soluble biodegradable material," the examiner asserts that (answer, page 4):

Appeal No. 96-0501
Application 08/101,499

It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a biodegradable plastic enclosure, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and due to environmental concerns it would have been obvious to select a biodegradable enclosure material. In re Leshin, [277 F.2d 197, 199,]125 USPQ 416 [,417-18 (CCPA 1960).]

Alternatively, the examiner states (id.):

Boeri or Starcevich teaches the use of water soluble and biodegradable materials for filler material. It would have been obvious to use water soluble and biodegradable materials for filler material as taught by Boeri or Starcevich for the filler material in the package of Bauman '521 as modified above to allow easy disposal of the packaging contents without damage to the environment.

Appellant contends in both the brief and reply brief that neither Bauman nor Wright teaches or suggests that both the enclosure and fill material be made of water soluble biodegradable material, and that neither Boeri or Starcevich suggests using biodegradable fill materials in combination with a biodegradable and/or water soluble enclosure. Appellant asserts that the examiner is engaging in impermissible hindsight reconstruction of his invention.

We note initially that claim 8 recites an enclosure "having a conformable external surface which engages the article and a

wall which serves as a protective barrier to keep the fill material out of direct contact with the article" (emphasis added). The other independent claims, 30, 33 and 34, contain similar language. This language is somewhat misleading, since the use of the word "and" implies that the claim is drawn to a double-walled enclosure having a first wall as the "external surface" and a second wall as the "protective barrier." However, we do not find a disclosure of any such double-walled enclosure in the application, and therefore will construe the claims as calling for an enclosure having a wall which is both the "external surface" and the "protective barrier" recited in the claims.

Turning to the references applied against claim 8, we find in Wright at col. 7, line 33 to col. 8, line 58 a disclosure of apparatus meeting all the limitations recited in claim 8, except for the use of "water soluble biodegradable material." Thus, Wright discloses a container or "first packaging enclosure" (col. 7, line 34), an article in the container (col. 8, line 7), and plural cushioning devices or "second packaging enclosures" (col. 7, line 35) which are sealed flexible enclosures containing individual particles (col. 7, lines 49 to 52 and 65), the pressure within the enclosures being subatmospheric with the fill

Appeal No. 96-0501
Application 08/101,499

compressed from about 90 to about 40 percent of its original volume (col. 8, lines 16 to 39).

The Starcevich patent discloses that packaging materials such as beads or discs which are made from petroleum-based products as polystyrene, styrofoam, etc., present a disposal and environmental problem in that they are not readily degradable (col. 1, lines 15 to 25). The patent therefore suggests as an alternative the use of a water soluble biodegradable packaging and cushioning material consisting of expanded fill particles made from grain, such as corn, wheat or rice. In view of the Starcevich patent, we consider that it would have been obvious to one of ordinary skill in the art to utilize the water soluble biodegradable fill particles disclosed by Starcevich instead of the petroleum-based fill materials disclosed by Wright at col. 4, line 34, et seq. Contrary to appellant's arguments, such substitution would not constitute impermissible hindsight reconstruction, but rather the application of a clear teaching in the prior art in order to solve a problem arising from use of the apparatus disclosed by Wright.

Moreover, we consider that it would have been obvious to utilize a water-soluble biodegradable material as the material of the "second packaging enclosures" disclosed by Wright. Wright discloses that the second enclosures may be "[a]ny polymeric

resin capable of forming a film" and meeting the requirements of being capable of (1) being sealed and (2) maintaining an internal vacuum for a sufficient length of time (col. 3, lines 48 to 55 and col. 4, lines 1 to 14). We take official notice² of the fact that most plastic bags on the market for trash, storage, etc. are made of biodegradable materials, and refer again to Starceovich's disclosure of the desirability of making packaging materials out of a water-soluble biodegradable substance. In addition to these suggestions in the prior art, it is a matter of common knowledge in this time of heightened environmental consciousness that it is desirable, whenever possible, to make items which will ultimately be disposed of out of biodegradable materials. The question of obviousness cannot be determined in a vacuum, but rather those skilled in the art must be presumed to know something about the art apart from what the references disclose, In re Jacoby, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962), and obviousness may be based on common knowledge and the common sense of one of ordinary skill in the art, without any specific hint or suggestion in a particular reference. In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969). Accordingly, we consider that one of ordinary skill in the art would have found

² See In re Ahlert, 424 F.2d 1088, 1091-1092, 165 USPQ 418, 420-21 (CCPA 1970).

Appeal No. 96-0501
Application 08/101,499

it obvious to employ for the film of the second enclosure of Wright a polymer which is water-soluble and biodegradable.

In view of the foregoing, we conclude that the subject matter recited in claim 8 would have been prima facie obvious over the applied prior art.

Claim 24 falls with its parent claim 8, inasmuch as the fill material disclosed by Starcevich is "starch based," as recited.

Claim 30 is drawn to a cushion for use in packaging an article, and does not recite that the biodegradable material is water soluble. We conclude that it is unpatentable for the same reasons as claim 8.

Claim 31 recites that the fill material consists of, inter alia, "plant fibers." This limitation reads on the grain disclosed by Starcevich.

Claim 32 recites that the enclosure material is selected from one of various biodegradable materials. Since we consider that it would have been obvious to make the second enclosure of Wright out of a film of a biodegradable polymer, we further consider that it would have been obvious to select a known polymer for that purpose. In re Leshin, supra.

Claim 33 is drawn to a method of packaging an article in a container. All the steps thereof are generally disclosed by Wright at col. 7, line 33 to col. 8, line 39, except that (i) the

materials of the enclosures and fill are not biodegradable, and (ii) the enclosures are compressed after being placed in the container, rather than before. As for (i), we consider the use of biodegradable materials to have been obvious, for the reasons discussed above. As for (ii), it would seem to have been an obvious matter of choice whether the enclosures were compressed before or after being placed in the container, and in any event, such pre-compression (pre-evacuation) would have been obvious in view of Bauman's disclosure of placing compressed packing bags into a container around an article 16 (col. 3, lines 5 to 21).

Accordingly, rejection (1) will be sustained.

Rejection (2)

Claim 25 reads:

25. A cushion as in claim 8, wherein the particles of fill material have an interlocking shape which reduces migration of the particles.

The examiner finds claim 25 to be unpatentable over the combination of references applied in rejection (1), in view of Holden or Atkins.

Holden discloses loose fill packing material of resilient thermoplastic foam particles which are made in an interlocking configuration. The patent teaches that the purpose of the interlocking shape is "in order to prevent settling of the

Appeal No. 96-0501
Application 08/101,499

packaging material due to relative movement between adjacent members in contact with one another" (col. 1, lines 56 to 60).

We consider this rejection to be well taken. Holden's disclosure of the advantages of interlocking fill particles would readily have suggested to one of ordinary skill in the art the use of particles of such shape for the fill particles of Wright.

Rejection (2) will be sustained.

Rejections (3) and (4)

Claim 34 reads:

34. In a method of packaging an article in a container, the steps of:

placing a multitude of particles of biodegradable fill material which in the aggregate form a compressible body in a flexible enclosure of biodegradable material which has an external surface for engagement with the article and a wall which serves as a protective barrier to keep the fill material out of direct contact with the article;

compressing the body of fill material outside the container to a shape corresponding to the contour of the article and the interior of the container; and

placing the compressed body of fill material and the article into the container with the external surface of the enclosure engaging the article and the wall of the enclosure isolating the article from direct contact with the fill material.

The rejection of claim 34 as unpatentable over Gianakos in view of Boeri or Starceovich was a new ground of rejection made in the examiner's answer. In response, the appellant filed a reply brief and an "Amendment Under Rule 193(b)" (Paper No. 16),

Appeal No. 96-0501
Application 08/101,499

amending claim 34 by changing "molding" to --compressing-- and "molded" to --compressed--.

The examiner then issued an advisory action (Paper No. 18) stating that the reply brief "has been entered and considered," but not mentioning the amendment. However, in the margin of the amendment is the handwritten notation "Do Not Enter/MDP 10/19/95."

Under the provisions of 37 CFR § 1.193(b), the appellant's reply to a new ground of rejection "may be accompanied by any amendment or material appropriate to the new ground," and an amendment limited to the new ground of rejection is entitled to entry. MPEP § 1208.03. Appellant was therefore entitled to have the amendment of claim 34 entered. Also, since appellant discussed the effect of the amendment in the reply brief (e.g., in part 5 on page 9), it was inconsistent for the examiner to state in Paper No. 18 that the reply brief had been considered while at the same time denying entry of the amendment (but not communicating the denial of entry to the appellant). Under the circumstances, we will treat the case as if the "Amendment Under Rule 193(b)" had been entered, and proceed on that basis.

In both rejection (3) and rejection (4), the examiner relies on Gianakos for its disclosure of molding an envelope of filler material prior to packaging. However, as appellant points out,

Appeal No. 96-0501
Application 08/101,499

claim 34 as amended now calls for the body of fill material to be compressed outside the container to a shape corresponding to the contour of the article, whereas in Gianakos the fill material is expanded to that shape. We therefore conclude that even if Gianakos were applied in the manner proposed by the examiner, all the limitations of amended claim 34 (and therefore of dependent claims 35 and 36) would not be met. Rejections (3) and (4) will therefore not be sustained.

Rejection Under 37 CFR 1.196(b)

Pursuant to 37 CFR 1.196(b), claims 25, 31 and 32 are rejected for failure to comply with the second paragraph of 35 U.S.C § 112.³

The test for compliance with §112, second paragraph, is

Whether the claim language, when read by a person of ordinary skill in the art in light of the specification, describes the subject matter with sufficient precision that the bounds of the claimed subject matter are distinct.

In re Merat, 519 F.2d 1390, 1396, 186 USPQ 471, 476 (CCPA 1975).

The preamble of claim 25 recites "A cushion as in Claim 8," while the preamble of claim 8 recites "A packing device comprising:." Setting aside the fact that the term "cushion" in

³ Although under some circumstances lack of compliance with § 112, second paragraph, may preclude consideration of a rejection under §103, that is not the case here. Cf. Ex parte Saceman, 27 USPQ2d 1472, 1474 (Bd. Pat. App. & Int. 1993).

Appeal No. 96-0501
Application 08/101,499

claim 25 lacks antecedent basis, this difference between the preambles of the claims raises the question of whether claim 25 is intended to be a further limitation on the combination recited in its parent claim 8, or whether it is drawn to the subcombination of the "cushion" [sic: cushioning device] recited in claim 8. This uncertainty renders the bounds of the claimed subject matter indistinct.

Likewise, the preambles of claims 31 and 32 each recite "A packing device as in Claim 30," while the preamble of claim 30 recites "In a cushion." There being no "packing device" recited in claim 30, it is not clear what apparatus claims 31 and 32 are intended to encompass; is it only the cushion of claim 30, or the container and article as well?

Conclusion

The examiner's decision to reject claims 8, 24, 25, and 30 to 33 is affirmed, and to reject claims 34 to 36 is reversed. Claims 25, 31 and 32 are rejected pursuant to 37 CFR § 1.196(b).

Any request for reconsideration or modification of this decision by the Board of Patent Appeals and Interferences based upon the same record must be filed within one month from the date hereof. 37 CFR § 1.197.

With respect to the new rejection under 37 CFR

Appeal No. 96-0501
Application 08/101,499

§ 1.196(b), should appellant elect the alternate option under that rule to prosecute further before the Primary Examiner by way of amendment or showing of facts, or both, not previously of record, a shortened statutory period for making such response is hereby set to expire two months from the date of this decision. In the event appellant elects this alternate option, in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejections, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellant elects prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to us for final action on the affirmed rejections, including any timely request for reconsideration thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART; 37 CFR § 1.196(b)

IAN A. CALVERT
Administrative Patent Judge)

Appeal No. 96-0501
Application 08/101,499

)

)

)

BOARD OF PATENT BRADLEY R. GARRIS)

Administrative Patent Judge) APPEALS AND

) INTERFERENCES

)

)

CHARLES E. FRANKFORT)

Administrative Patent Judge)

Flehr, Hohbach, Test, Albritton
& Herbert
Suite 3400, Four Embarcadero Center
San Francisco, CA 94111